

Chemistry Review

Answer Section

SHORT ANSWER

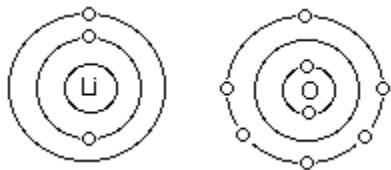
1. ANS:
 X - hydrogen
 Y - carbon
 Z - sodium

REF: UC

LOC: DS2

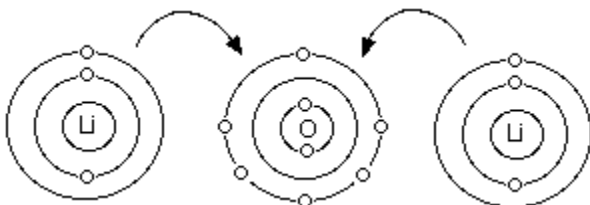
2. ANS:

a.



- b. lithium is the metal and oxygen is the nonmetal.

c.



- d. lithium - 1+ oxygen - 2-

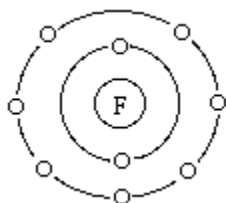
- e. Li_2O lithium oxide

REF: UC

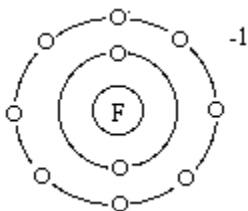
LOC: DS2

3. ANS:

- a. The sketch will depend on the specific halogen selected, probably fluorine or chlorine.



b.



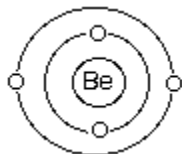
- c. fluoride or chloride

REF: UC

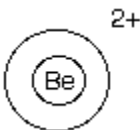
LOC: DS2

4. ANS:

- a. The sketch will depend on the specific metal selected, probably beryllium or magnesium.



b.



REF: UC

LOC: DS2

5. ANS:

K_2S - potassium sulfide

Ag_2O - silver oxide

sodium oxide - Na_2O

lithium iodide - LiI

beryllium chloride - $BeCl_2$

$AlBr_3$ - aluminum bromide

ZnF_2 - zinc fluoride

calcium nitride - Ca_3N_2

potassium phosphide - K_3P

magnesium hydride - MgH_2

REF: UC

LOC: UBC1

6. ANS:

$CaCl_2$ - calcium chloride

BaI_2 - barium iodide

hydrogen chloride - HCl

aluminum nitride - AlN

zinc sulfide - ZnS

Mg_3P_2 - magnesium phosphide

Na_3N - sodium nitride

potassium oxide - K_2O

sodium fluoride - NaF

potassium bromide - KBr

REF: UC

LOC: UBC1

7. ANS:

PbI_2 - lead(II) iodide

Fe_2O_3 - iron(III) oxide

iron(II) bromide - $FeBr_2$

copper(I) nitride - Cu_3N

SnF_4 - tin(IV) fluoride

Cu_2S - copper(I) sulfide

tin(II) phosphide - Sn_3P_2

lead(IV) oxide - PbO_2

REF: UC

LOC: UBC1

8. ANS:

$AgNO_3$ - silver nitrate

$CaSO_4$ - calcium sulfate

magnesium carbonate - $MgCO_3$

copper(II) sulfate - $CuSO_4$

$Pb(ClO_3)_2$ - lead(II) chlorate

K_3PO_4 - potassium phosphate

calcium hydrogen carbonate - $Ca(HCO_3)_2$

iron(II) hydroxide - $Fe(OH)_2$

REF: UC

LOC: UBC1

9. ANS:

Na_2CO_3 - sodium carbonate

$Sn(NO_3)_2$ - tin(II) nitrate

Cu(OH)₂ - copper(II) hydroxide

zinc chlorate - Zn(ClO₃)₂

potassium sulfate - K₂SO₄

Al(HCO₃)₃ - aluminum hydrogen carbonate

calcium phosphate - Ca₃(PO₄)₂

lead(IV) carbonate - Pb(CO₃)₂

REF: UC

LOC: UBC1

10. ANS:

SO₂ - sulfur dioxide

NBr₃ - nitrogen tribromide

carbon dioxide - CO₂

silicon tetrabromide - SiBr₄

CF₄ - carbon tetrafluoride

CS₂ - carbon disulfide

nitrogen phosphide - NP

chlorine oxide - Cl₂O

REF: UC

LOC: UBC1

11. ANS:

ammonia + sulfuric acid → ammonium sulfate

REF: UC

LOC: DS2

12. ANS:

a. silver

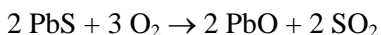
b. oxygen

c. potassium iodide

REF: UC

LOC: DS2

13. ANS:



REF: UC

LOC: DS2

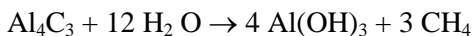
14. ANS:



REF: UC

LOC: DS2

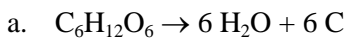
15. ANS:



REF: UC

LOC: DS2

16. ANS:

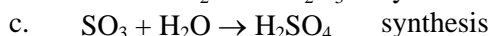
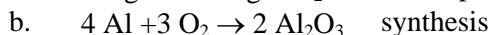
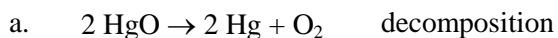


b. decomposition

REF: UC

LOC: UBC3, DS2

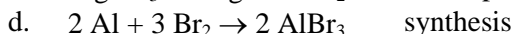
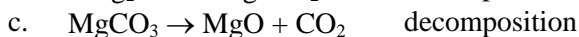
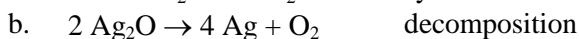
17. ANS:



REF: UC

LOC: UBC3

18. ANS:



REF: UC LOC: UBC3, DS2

19. ANS:

- a. single displacement
- b. double displacement
- c. single displacement
- d. double displacement

REF: UC LOC: UBC3

20. ANS:

- a. $\text{Bi}_2\text{O}_3 + 3 \text{H}_2 \rightarrow 3 \text{H}_2\text{O} + 2 \text{Bi}$
- b. single displacement

REF: UC LOC: DS2